Chalmers on virtual reality:

Realism on the cheap?

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1. **Introduction**

*You sit in your office and put on the latest pair of virtual reality goggles. Suddenly, you stand in the middle of the Time Square. A car almost hits you. You move away from the street and find a 7-Eleven. You enter the store, greet the shop owner, and buy a Coke. Outside the store, you open the can and start drinking.*

Episodes like this are likely to become a normal way of spending one’s time in the not too-distant future. Virtual reality (VR) technology will enable us to visit all kinds of places and do all kinds of things while sitting comfortably in our office chair. But are the things and the events we experience in VR real? In the above scenario: Are you *really* having a Coke at Time Square? Or is that a mere fiction, akin to a kind of video game?

In his recent book *Reality+. Virtual worlds and the problems of philosophy*, David Chalmers advocates for *virtual realism*: “the thesis that virtual reality is genuine reality” (p. 106). A key step in Chalmers’ case for virtual realism consists in showing that virtual objects and events meet the marks of reality identified by philosophers of the present and the past: they *really exist*, they *have causal powers*, they are *mind-independent*, they are *non-illusory* and they can sometimes be counted as *genuine* instances of their kinds. Although interesting in its own right, Chalmers argues that virtual realism also has important upshots for a whole range of moral and epistemological questions concerning VR.

In this paper, I challenge Chalmers’ arguments for virtual realism and offer an alternative. I argue that, at least when it comes to the objects and events that we find in *temporary* VR devices (as opposed to permanent simulations), fictionalism is more fitting than realism. My argument proceeds from the observation, shared by Chalmers, that there is an important sense in which virtual objects and events are typically *not* real: whatever a virtual Coke is, it is not a genuine Coke; and whatever a virtual car is, it is not a genuine car. But whereas Chalmers takes this to be more or less consistent with realism (“80% realism”, he says; p. 202), I argue that it implies fictionalism.

I proceed as follows. In §2, I reconstruct Chalmers’ virtual realism; in §3, I challenge Chalmers’ case for virtual realism; in §4, I strengthen the argument by suggesting an object-fictionalist alternative; §5 concludes.

1. **The reality checklist, simulated objects, and virtual objects**

A laudable feature of Chalmers’ case for virtual realism lies in his pluralistic approach to the question of what counts as real. Instead of simply giving us a definition, Chalmers bases his case on five “different strand[s] in our concept of the real” (p. 108):

1. *Reality as existence:* something is real if it exists. Joe Biden exists, so he is real; Santa Claus does not exist, so he isn’t. This pushes the reality question over to the existence question: What does it mean for something to exist? Chalmers does not settle on an answer to this question but offers a heuristic: “If something is perceivable and measurable, that’s a strong indication that it exists” (p. 110).
2. *Reality as causal power:* “something exists if and only it can affect things or be affected by things” (p. 110)*.* Chalmers introduces this as a further development of the existence strand.Joe Biden can and does affect things in his environment, so he has causal powers. Santa Claus, on the other hand, cannot. Though probably not necessary, causal powers “provide at least a sufficient condition for reality” (p. 111).
3. *Reality as mind-independence:* “Reality is that which doesn’t depend on anyone’s mind for its existence” (p. 111). Again, Chalmers allows counterexamples to this criterion. “Still, mind-independence can serve as a useful sufficient condition for being real” (p. 112).
4. *Reality as non-illusoriness:* something is real when it’s the way it seems; something is illusory when it’s not the way it seems. Chalmers adds: “I’ll understand the fourth criterion as saying things are real when they’re roughly as we believe them to be” (p. 113).
5. *Reality as genuineness:* “We often don’t *just* want to know whether something is real […] If someone gives me an object that looks like a Rolex watch, what he has given me is indisputably real […] What I’m interested in is whether it’s a […] *real* *Rolex*. We could put this by asking whether the [Rolex watch] is *genuine*” (p. 114)

Taken together, these five criteria – *existence, causal powers, mind-independence, non-illusoriness* and *genuineness* – constitute what Chalmers calls a “reality checklist”. Equipped with this checklist, Chalmers approaches the objects and events in virtual and simulated reality. He begins in chapter 6 with the case of a perfect and permanent simulation, i.e., whether the objects and events around us would still be real if it turned out that they had simulated all along. In chapter 10, he considers the case of “ordinary” virtual worlds and virtual reality.[[1]](#footnote-2) To ease the discussion, I will call the objects and events in permanent simulations “simulated” and distinguish them from the “virtual” objects and events that we find in virtual worlds.

Chalmers holds that simulated objects and events meet all five criteria on the reality checklist. If we happen to live in a permanent simulation, then the very objects we find around us are *digital* rather than *physical* objects. But this does not mean that they don’t exist, nor that they don’t have causal powers or are dependent on anyone’s mind. As Chalmers puts it, the simulation hypothesis is a *metaphysical hypothesis* about the true nature of things (p. 118f.). This hypothesis is incompatible with *some* of our more abstract beliefs, e.g. the belief that the objects around us are physical objects. But this does not entail that these objects and events don’t exist, are merely in our heads or cannot interact with each other. For the same reason, they are, for the most part, non-illusory. Moreover, Chalmers argues, we should not think of simulated objects as fake objects that ought to be distinguished from genuine ones. If we’re living in a simulation, then *all* Rolex watches are digital objects.

For the sake of the argument, I will grant all of this to Chalmers. Along with Chalmers, I will assume that, should we live in a permanent and perfect simulation, the objects and events around us meet all five criteria on the checklist. I will also grant that this is a sufficient reason for accepting *simulation realism* – the thesis that simulated objects and events are real. The problems arise only when Chalmers aims to extend this picture towards the objects and events we encounter in non-permanent virtual worlds of the kind we use already or are about to use in the not too distant future.

Chalmers argues that there is no relevant difference between simulated objects and virtual objects with respect to the first three criteria on the checklist: Just as simulated objects, virtual objects exist as digital objects inside computer systems; just as simulated objects, virtual objects have the causal powers to affect users and other virtual objects; just as simulated objects, virtual objects are mind-independent: even if I take off my VR headset, virtual objects go on without me. This leaves us with (4) and (5) above. Here, Chalmers concedes that there are “important differences” (p. 186) between simulated objects and virtual objects.

Whether virtual objects are illusory depends on what we believe about them. For example, if I enter a virtual reality and mistakenly treat the objects around me as physical objects, then these objects are illusory to me. However, Chalmers argues that competent VR users are usually fully aware of the fact that what they see and experience within a VR are not physical objects and they are able to distinguish between the physical outside world and the VR world without much effort. For such users, VR does not usually involve an illusion.

The biggest difference between simulated and virtual objects arises for criterion (5) above. Should we live in a permanent simulation, then the cars that drive on our streets are genuine cars – it just turns out that genuine cars are digital rather than physical entities. The same holds for other types of objects. This is different when it comes to virtual reality and virtual worlds more generally. Here, there is a physical, non-digital outside world that we can use to compare the virtual one with.[[2]](#footnote-3) This means that, for ordinary VR users, genuine Rolex watches are physical Rolex watches and genuine cars are physical cars. Taken together, we might say that virtual objects reach level 4, but not 5, of reality.

What implications does the non-genuineness of virtual objects and events have for virtual realism? According to Chalmers: no severe ones. Even if virtual objects and events fail to be genuine, virtual realism is still roughly the right view about them. Thus, he writes that “[a]ll this supports the conclusion that while virtual reality isn’t the same as ordinary physical reality (at least, not unless physical reality is itself a simulation), it’s a genuine reality all the same” (p. 202). As far as Chalmers is concerned, level 4 is enough for genuine reality.

1. **Virtual worlds and role-playing**

Fictionalism is the biggest contender to virtual realism. *Pace* Chalmers, I argue that it offers a more accurate description of virtual objects and events. I proceed in two steps: In this section, I show that there are paradigmatic fictions that equally reach level 4 of reality, which puts some doubt on the strength of Chalmers arguments for virtual realism. In the next section, I argue that level 4 is better captured by object-fictionalism than by realism.

Consider the following scenario:

*Role-play*

You dress up as Frodo, I dress up as Gandalf, some other people play Orcs and the like, and we enact the adventures in *Lord of the Rings*. An excited bystander utters: “Gandalf just saved Frodo’s life!”.

One thing that is clear about *Role-play* is that it involves a fiction: I am not *really* Gandalf and you are not *really* Frodo, after all. What motivates and justifies the bystander’s utterance is a combination of facts about how we dressed up and act, on the one hand, and the content of the *Lord of the Rings* novels, on the other.[[3]](#footnote-4)

Despite obviously involving a fiction, *Role-play* reaches level 4 on the reality checklist. You, me, and the other people really exist, we have causal powers and are mind-independent. If I didn’t exist or have causal powers, I could not perform an act on you that, according to the *Lord of the Rings* fiction, amounts to saving your life, and it is clearly not the case that, if the bystander were to walk away or start thinking of something different, you and I would vanish.[[4]](#footnote-5) Does *Role-play* involve an illusion? It depends. Most people can easily distinguish between fiction and reality, so for them it doesn’t. For some small children, it might. Just as (most) virtual objects and events, the objects and events depicted in *Role-play* fail to satisfy genuineness. I am not *genuinely* Gandalf, you are not *genuinely* Frodo, and what I do to you is not *genuinely* saving your life.

Taken together, these considerations show something important: when it comes to showing that something is real rather than fictitious, level 4 is not enough – even paradigmatic fictions reach this level!

Chalmers might try to defend his case for virtual realism by pointing out relevant differences between *Role-play* and virtual worlds – differences that would explain why the former involves a fiction whereas the latter does not. When considering video games, he writes:

I agree that […] video games involve fictions, but […] video-game worlds aren’t a good guide to virtual worlds in general. The reason […] video games involve fictions is not that they’re virtual but that they’re (role-playing) games (p. 193)

By contrast, Chalmers argues, our interactions in virtual worlds do not typically involve role-playing and therefore no fictions:

Suppose you and I are having a conversation in Second Life. My avatar is in a room with your avatar. I greet you and we talk about the weather before moving on to philosophy and then going to see a concert. Where’s the fiction here? (p. 194)

On this line of thought, there is a clear reason why *Role-play* and virtual worlds are not on a par with respect to realism: *Role-play* does, whereas virtual worlds typically do not, involve, well, role-playing.

The first thing to note about this response is that it effectively concedes that level 4 is insufficient for realism. This flies in the face of Chalmers’ original argument, whose goal it was to establish virtual realism by proving that virtual objects and events reach level 4.

One might try to fix this problem by adding a no-role-play clause to the reality checklist and by arguing that objects are real insofar as they reach level 4 *and involve no role-play*. Call this level 4+. But suppose we raise the bar to level 4+: Is it really so obvious that virtual objects and events pass it? The episode Chalmers describes above is unhelpful in answering this question, because it only involves avatars talking to each other. But avatars are at best borderline cases of virtual objects and talking to each other does not constitute an unequivocally virtual event either (it’s real people who do the talking, and the virtual world doesn’t transform or add anything to the way we talk either). What would we say about an episode in a virtual world that is richer than the one Chalmers mentions, such as the episode I mentioned in the introduction? Is it equally clear that, when I enter a virtual world, travel to Time Square, barely evade being hit by a car and drink a cold Coke, there is no fiction involved in this? Or suppose we add just a little detail to the example mentioned by Chalmers, as follows:

Suppose you and I are having a conversation in Second Life. My avatar sits in a nice and cozy café near the beach with your avatar. The waiter serves us coffee. We talk about the weather before moving on to philosophy and then going to see a concert.

In the passage cited above, Chalmers asked where the fiction was, to which I answer: Whereas it is not a fiction that we meet and talk, almost everything else is. In particular: It is a fiction that we sit in a café which is nice and cozy, that this café is near the beach, that the waiter serves us coffee, etc. Note that modifying the example along the lines suggested is not a dialectically unfair move. After all, the issue is whether *virtual objects* and *events* are real, so we need to look at examples that involve clear instances of such objects and events. It therefore seems that, while level 4 is insufficient for realism, virtual objects aren’t “real enough” to reach level 4+.

1. **Virtual fictionalism**

So far, I have been working with a pre-theoretical notion of whether something is or involves a fiction. It is now time to back this up by theory. I argue that virtual fictionalists – those who think that virtual objects and events are fictional rather than real – can rely on an existing theoretical paradigm, object-fictionalism, to develop their view.

The philosophical discussion of fictionalism centers around the question how to interpret the utterances that speakers make within a certain domain d, rather than about the objects or events within d. Drawing on prior work by Yablo (2001), Eklund (2019) distinguishes the following three variants of fictionalism[[5]](#footnote-6):

**Instrumentalism:** the speaker is not “really” asserting anything, only pretending to do so.

**Meta-fictionalism:** the speaker is “really” asserting that according to a certain fiction, the objects and events are so and so.

**Object-fictionalism:** the speaker is “really” asserting that the world is in a certain condition, namely, the condition it needs to be in to make it true in the relevant fiction that the objects and events are so and so.

Let us see how these views play out when applied to *Role-play*; in particular, to the bystander’s utterance “Gandalf just saved Frodo’s life!”. According to *Instrumentalism*, the bystander is not really asserting anything at all – she is merely pretending to do so. According to *Meta-fictionalism*, she is really asserting that, according to the *Lord of the Rings* fiction, Gandalf is saving Frodo’s life. According to *Object-fictionalism*, she is really asserting that you, me, and many other things are currently arranged and behaving in such a way that, according to the *Lord of the Rings* fiction, it is the case that Gandalf saves Frodo’s life.

Neither *Instrumentalism* nor *Meta-fictionalism* seem to give apt descriptions of *Role-play*. *Instrumentalism* gets it wrong because there is no pretense in the bystander’s utterance; she is *really* asserting something. *Meta-fictionalism* gets it wrong because it neglects the role of the actors: the bystander is not saying that, *somewhere in the Lord of the Rings novel*, Gandalf saves Frodo’s life. Rather, she is saying that *what you and me are doing* is an act that, according to the *Lord of the Rings* fiction, counts as Gandalf saving Frodo’s life.

*Object-fictionalism,* however*,* does better than instrumentalism and meta-fictionalism. Object-fictionalism interprets the bystander’s utterance as one about both: how things are in the real world and the content of the fiction. The bystander is "really" asserting something and what she asserts has truth conditions. If I had performed differently, it would have been false to say that Gandalf just saved Frodo's life. However, those truth conditions do not involve Gandalf and Frodo, but you and me. What the speaker really asserts is that the episode performed by us is such that, according to the *Lord of the Rings* fiction, it makes it true that Gandalf just saved Frodo's life.

Importantly, the object-fictionalist take on *Role-play* is consistent with – even dependent upon – the fact that it meets the first four criteria on the reality checklist. The bystander’s utterance would not be true if nobody had dressed up as Gandalf and Frodo and performed a relevant action, or if neither of us possessed any causal powers. The fictionalist take on *Role-play* is also consistent with you and me and our actions being mind-independent and non-illusory. What distinguishes the object-fictionalist take on *Role-play* from a realist position is rather that it needs a fiction to get from you, me and our actions to Gandalf saving Frodo’s life. And the reason why we need a fiction to establish this connection is that I am not *genuinely* Gandalf, you are not *genuinely* Frodo, and what I do to you is not *genuinely* saving your life.

If you agree that object-fictionalism yields a plausible account of the bystander’s utterance in *Role-play*, this bolsters my previous point. In the last section, we have seen that there are cases, e.g. *Role-play*, that intuitively involve a fiction, even though they meet criteria (1)-(4) – namely if the relevant objects and actions lack *genuineness*. Now we have seen that these cases are plausibly covered by a variant of fictionalism. The intuitive notion of “involving a fiction” can thus be translated into object-fictionalism.

Chalmers considers yet rejects what he calls virtual fictionalism – the view that virtual objects are fictions. He describes the position as follows:

Virtual digitalism says that virtual objects are digital objects, in the broad sense we’ve just explained. Its biggest competition is virtual fictionalism. Virtual fictionalism may allow that for every virtual object there’s a digital object, but it insists that they aren’t the same. The digital object is real, but the virtual object is fictional. (p. 196)

This view comes close to the situation depicted in *Role-play*. There really are objects with certain properties, namely digital objects, but these digital objects aren't the same as the virtual objects. This resembles the idea that, in *Role-play*, there really are people performing certain actions, but these people aren't Gandalf and Frodo.

Chalmers argues against virtual fictionalism and for virtual realism on the grounds of the following argument:

(1) Virtual objects have certain causal powers (to affect other virtual

objects, to affect users, and so on).

(2) Digital objects really have those causal powers (and nothing else

does).

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(3) Virtual objects are digital objects (p. 197)

But this argument misses the point. Consider how it can be transferred to *Role-play*:

(1\*) Gandalf and Frodo have certain causal powers (to affect one another, to affect the ring, and so on).

(2\*) You and me really have those causal powers (and nothing else does).

Chalmers' reasoning would entail that

(3\*) I am Gandalf and you are Frodo.

However, (3\*) is either false (sadly, I am not Gandalf) or consistent with object-fictionalism (in some sense, I *am* Gandalf – namely according to the fiction). In neither case does the argument help to establish that object-fictionalism about *Role-play* is incorrect. That, of course, is good news: fictionalism is clearly the correct view with respect to *Role-play*. But if the argument does not refute fictionalism when applied to *Role-play*, we lack any reason to assume it works for virtual objects. More generally, object-fictionalism is not refuted by the observation that there are real objects with causal powers that correspond to the objects in the target domain. The fact that there is a causally efficacious computer code behind a virtual Coke does not make it any more real than the fact that me dressing up as Gandalf turns Gandalf into a real person.

1. **Conclusion**

I have argued that Chalmers’ virtual realism, established via the reality checklist, is in fact too weak to deserve its name. To show this, I have demonstrated that the position equally applies to a scenario of role-playing – an uncontroversial instance of a fiction. What really distinguishes virtual realism from fictionalism is whether the objects in question are *genuine*, which, by Chalmers’ own lights, they are not. I have bolstered this argument by highlighting a version of fictionalism, object-fictionalism, that seems to give just the right interpretation of utterances about role-playing cases. This raises the question why this same view should not also be adopted for virtual objects and events. On such a view, it might well be that, for every virtual object, there is a corresponding digital object, such that the latter object really exists, has causal powers, etc. Nonetheless, the states and doings of the virtual objects are fictitious, for they only hold in virtue of an underlying VR fiction.

**References**

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Eklund, M. (2019). "Fictionalism", The Stanford Encyclopedia of Philosophy (Winter 2019 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/win2019/entries/fictionalism/>.

Yablo, S. (2001). Go Figure: A Path Through Fictionalism, in: French, P. and H. Wettstein, (eds.), *Midwest Studies in Philosophy Volume XXV: Figurative Language*, Oxford: Blackwell, pp. 72–102.

1. Virtual worlds and realities are both computer-generated, interactive spaces. But unlike virtual worlds, Chalmers takes virtual reality to be immersive: “Instead of showing you a two-dimensional screen, VR immerses you in a three-dimensional world you can see and hear as if you existed within it” (p. xii). This difference won’t matter much in what follows, though my examples will mostly be derived from virtual realities. [↑](#footnote-ref-2)
2. What this means exactly is an issue that Chalmers discusses in ch. 20. Therein, he critically discusses Putnam’s classic argument to this effect. [↑](#footnote-ref-3)
3. The episode is inspired from Chalmers himself, who agrees that it amounts to a fiction (p. 193f.). [↑](#footnote-ref-4)
4. Obviously, I don’t have Gandalf’s causal powers, but only those of an ordinary person. But this is just to say that I am not genuinely Gandalf (see below). Compare this case to that of a fake Rolex: while it this has some causal powers, it doesn’t have the exact causal powers of a genuine Rolex watch. [↑](#footnote-ref-5)
5. Eklund mentions a fourth, *Figuralism*, which I take to be a more sophisticated variant of *Object-fictionalism*. We don’t need to go into the details here. [↑](#footnote-ref-6)